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BIOLOGICAL EVALUATION OF POPLAR TENTMAKER POPULATIONS ON A COTTONWOOD PLANTATION AT PROFIT ISLAND, LOUISIANA

by

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INTRODUCTION

In recent years poplar tentmaker, Icthyura inclusa Hubner, has caused considerable defoliation on poplar plantations in Mississippi (Stein and Oliveria 1979). Reports by personnel from Trans Match Corporation in May 1981 indicated low populations of the tentmaker on a 5 year old cottonwood plantation with trees 30-60 ft tall at Profit Island near Baton Rouge, Louisiana.

In order to estimate poplar tentmaker population numbers and the extent of present and future defoliation, an evaluation was conducted on June 25, 1981.

METHODS

One cottonwood branch was sampled from the mid-crown of each of 10 randomly selected cottonwood trees in a 300 acre plantation. Numbers of poplar tentmaker larvae on each branch were counted. The following criteria developed by Forrest Oliveria (personal communication) were used to determine potential defoliation:

Number of larvae/limb	Expected % defoliation
<20	0-39
20-40	40-59
41-50	60-80
>50	80-100

A sample of 60 poplar tentmaker larvae were collected and placed in rearing cages to estimate when the next generation egg hatch will occur and percent parasitism.

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RESULTS

Counts of live poplar tentmaker larvae ranged from 0 to 24 per branch with a mean of 6.5 (table 1). Larvae collected ranged from early to late instars.

Table 1. Branch counts of poplar tentmaker, Trans Match Coorporation, Profit Island, Louisiana, June 1981.

Branch Number	Number of PTM larvae
1	0
2	1
3	15
4	3
5	21
6	0
7	24
8	0
9	0
10	1
MEAN	6.5

Defoliation caused by the cottonwood leaf beetle, Chrysomella scripta F. was noted on trees in the plantation; however, overall defoliation was light.

DISCUSSION AND RECOMMENDATIONS

Defoliation from poplar tentmaker feeding will be light for the present generation; therefore, no control measures are recommended at the present time. However, poplar tentmaker populations could increase in subsequent generations.

Peak egg hatch will be estimated by laboratory rearings. Another evaluation will be conducted a week later.

REFERENCES

Stein, C. R. and F. L. Oliveria.
1979. Status of poplar tentmaker in the lower Mississippi River Delta. Southeastern Area, S&PF, USDA Forest Service, Alexandria Field Office Report No. 79-2-7.

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